



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/550,678	04/12/2008	Dietrich Willem Van Der Plas	8674.031.US0000	8339
77213	7590	08/24/2009		
Novak Druce + Quigg, LLP 1300 Eye Street, NW, Suite 1000 Suite 1000, West Tower Washington, DC 20005			EXAMINER WONG, EDNA	
			ART UNIT	PAPER NUMBER
			1795	
			MAIL DATE	DELIVERY MODE
			08/24/2009	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

ADVISORY ACTION

Response to Amendment

This is in response to the Amendment After Final dated August 18, 2009. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office Action.

Response to Arguments

Claim Objections

Claim **1** has been objected to because of minor informalities.

The rejection of claim 1 has been withdrawn in view of Applicants' amendment.

Claim Rejections - 35 USC § 112

Claims **15-17** have been rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention.

The rejection of claims 15-17 under 35 U.S.C. 112, first paragraph, has been withdrawn in view of Applicants' amendment.

Claim Rejections - 35 USC § 103

I. Claims **1-5, 7-9 and 11-17** have been rejected under 35 U.S.C. 103(a) as being unpatentable over **Minh et al.** (US Patent No. 4,464,234) in view of **Khazanov et al.** ("Electrolysis of Fused Aluminum Sulfide", *Legkie Metally* (1935), Vol. 4, No. 11, pp. 1-14).

The rejection of claims 1-5, 7-9 and 11-17 under 35 U.S.C. 103(a) as being unpatentable over Minh et al. in view of Khazanov et al. is as applied in the Office Action dated April 28, 2009 and incorporated herein. The rejection has been maintained for the following reasons:

Applicants state that the proposed combination of Minh and Khazanov is based on a hindsight reconstruction of the present invention. At the time the present invention was made, the combination of Minh and Khazanov would not have prompted a person having ordinary skill in the art to arrive at the present invention.

In response, it must be recognized that any judgment on obviousness is in a sense necessarily a reconstruction based upon hindsight reasoning. But so long as it takes into account only knowledge which was within the level of ordinary skill at the time the claimed invention was made, and does not include knowledge gleaned only from the applicant's disclosure, such a reconstruction is proper. See *In re McLaughlin*, 443 F.2d 1392, 170 USPQ 209 (CCPA 1971).

Furthermore, there is no requirement that the motivation to make the combination be expressly articulated in one or more of the references. The teaching, suggestion or

inference can be found not only in the references but also from knowledge generally available to one of ordinary skill in the art. *Ashland Oil v. Delta Resins* 227 USPQ 657 (CAFC 1985). The test for combining references is what the combination of disclosures taken as a whole would suggest to one of ordinary skill in the art. *In re McLaughlin* 170 USPQ 209 (CCPA 1971); *In re Rosselet* 146 USPQ 183 (CCPA 1960). References are evaluated by what they collectively suggest to one versed in the art, rather than by their specific disclosures. *In re Simon* 174 USPQ 114 (CCPA 1972); *In re Richman* 165 USPQ 509, 514 (CCPA 1970).

Applicants state that Khazanov provides no apparent reason for one of ordinary skill in the art to assume improved current output could be achieved by the addition of cryolite to a bath of molten chloride salt comprising a MgCl_2 -NaCl-KCl mixture.

In response, the test for obviousness is not whether the features of a secondary reference may be bodily incorporated into the structure of the primary reference; nor is it that the claimed invention must be expressly suggested in any one or all of the references. Rather, the test is what the combined teachings of the references would have suggested to those of ordinary skill in the art. See *In re Keller*, 642 F.2d 413, 208 USPQ 871 (CCPA 1981).

Furthermore, the reason or motivation to modify the reference may often suggest what the inventor has done, but for a different purpose or to solve a different problem. It is not necessary that the prior art suggest the combination to achieve the same

advantage or result discovered by the Applicants. *In re Linter* 458 F.2d 1013, 173 USPQ 560 (CCPA 1972); *In re Dillon* 919 F.2d 688, 16 USPQ2d 1897 (Fed. Cir. 1990), *cert. denied*, 500 US 904 (1991); and MPEP § 2144.

Applicants state that Table 6 of Khazanov indicates the current output in a NaCl-AlF₆ alloy is better if the cryolite content is high. However, a person having ordinary skill in the art had no reason to assume this result, achieved for NaCl only, would be achieved with a salt mixture containing NaCl and KCl, or a salt mixture containing NaCl, KCl, and MgCl₂.

In response, it is *prima facie* obvious to combine two compositions each of which is taught by the prior art to be useful for the same purpose, in order to form a third composition to be used for the very same purpose. The idea of combining them flows logically from their having been individually taught by the prior art (MPEP § 2144.06).

II. Claim **6** has been rejected under 35 U.S.C. 103(a) as being unpatentable over **Minh et al.** (US Patent No. 4,464,234) in view of **Khazanov et al.** ("Electrolysis of Fused Aluminum Sulfide", *Legkie Metally* (1935), Vol. 4, No. 11, pp. 1-14) as applied to claims 1-5, 7-9 and 11-17 above, and further in view of **Greenfield** (US Patent No. 2,939,824).

The rejection of claim 6 under 35 U.S.C. 103(a) as being unpatentable over Minh et al. in view of Khazanov et al. as applied to claims 1-5, 7-9 and 11-17 above, and

further in view of Greenfield is as applied in the Office Action dated April 28, 2009 and incorporated herein. The rejection has been maintained for the reasons as discussed above.

Applicants' remarks have been fully considered but they are not deemed to be persuasive.

III. Claim **10** has been rejected under 35 U.S.C. 103(a) as being unpatentable over **Minh et al.** (US Patent No. 4,464,234) in view of **Khazanov et al.** ("Electrolysis of Fused Aluminum Sulfide", *Legkie Metally* (1935), Vol. 4, No. 11, pp. 1-14) as applied to claims 1-5, 7-9 and 11-17 above, and further in view of **Rogers, Jr.** (US Patent No. 4,133,727).

The rejection of claim 10 under 35 U.S.C. 103(a) as being unpatentable over Minh et al. in view of Khazanov et al. as applied to claims 1-5, 7-9 and 11-17 above, and further in view of Rogers, Jr. is as applied in the Office Action dated April 28, 2009 and incorporated herein. The rejection has been maintained for the reasons as discussed above.

Applicants' remarks have been fully considered but they are not deemed to be persuasive.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to EDNA WONG whose telephone number is (571) 272-

1349. The examiner can normally be reached on Mon-Fri 7:30 am to 4:00 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Nam Nguyen can be reached on (571) 272-1342. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Edna Wong/
Primary Examiner
Art Unit 1795

EW
August 21, 2009